

Practice Paper - II
Subject : Biology (Theory)
Class : XI

Time : 3 Hrs.]

[MM : 70

General Instructions :

- (i) All questions are compulsory.
- (ii) The question paper is consist of four sections. A,B,C group D.
- (iii) Section -Contains 5 questions each of, 1 marks, section-B contains 7 questions each of 2 marks and sections – C-has 12 questions each of 3 marks, and section D has 3 questions each of 5 marks.
- (iv) There no over all choice. An internal choice is given in 1 marks questions, of 2 marks, 1 questions of 3 marks and in all 3 questions of 5 marks.
- (v) Write answers of all parts together and clearly indicate questions no and its part while answering.

Section A

1 Mark each

1. Define systematic.
2. Write the scientific name of potato.
3. What is the significance of bulliform cells in grasses?
4. Name the most abundant protein in animal world and most abundant protein in the whole of the biosphere.
5. What is erythroblastosis foetalis?

Section B

2 Marks each

6. Write two points of differences between mosses and liver worts.

Or

write the steps of sexual cycle in fungi.

7. What are compound leaves? Name two types of compound leaves with examples.
8. (a) Why antibiotics, alkaloids etc. considered as secondary metabolite, even though they are very useful for human welfare?
(b) why starch produces blue colour with iodine but cellulose can not?
9. What are mesosomes? Write their four functions performed in prokaryote.
10. Write any four differences in meiosis-I and meiosis-II
11. Which one of the plant growth regulator would you use if you are asked to—
 - (i) induce rooting in a twig
 - (ii) delay in leaf senescence.
 - (iii) 'bolt' a resettle plant
 - (iv) Induce immediate stomata closure in leaves.
12. In which form the following are absorbed by plant
(a) copper (b) iron (c) Nitrogen (d) calcium

Write one function performed by each mineral element.

Section C

3 Marks each

13. Write any five features of class osteichthyes thyes and one example.
14. Draw well labeled diagram of alimentary canal of cockroach and label following parts—
 - (a) which store food

- (b) Which help in grinding the food particles.
- (c) Which secrete digestive enzymes.
- (d) Which remove excretory products from haemolymph.

OR

Explain the process of secondary growth in dicot stem.

15. Write three points of difference between dicot stem and monocot stem.
16. What do you mean by inflorescence. Explain two major types of inflorescence.
17. Compare peptide bond, glycosidic bond and phosphodiester bond between biomolecules.
18. (a) What is the relationship between water potential, solute potential and pressure potential.
(b) In what conditions, water potential of pure water can be more than zero.
(c) Define water potential.

Or

What physical properties of water decide the ascent of xylem sap during transpiration explain them.

19. Explain two ways to synthesis amino acids in plants by using NH_4^+ . Write reactions too.
20. What is photoperiodism? Explain three types of plants on the basis of photoperiods.
21. How does butter in your food get digested and absorbed in the body?
22. What factors are responsible for dissociation of oxygen from the oxhaernoglobin? Can you suggest any reason for its sigmoidal pattern?
23. (a) Which hormone is considered as emergency hormone and why?
(b) Name the mineralocorticoids which is responsible for reabsorption Na^+ + water and excretion of K^+ and phosphate ions.
24. Explain different steps of the mechanism of muscle contraction.

Section D

4 Marks each

25. (a) Explain different steps of urine formation.
(b) How ANF mechanism acts as a check on the renin-angiotensin mechanism.

Or

- (a) Explain the distribution of nodal musculature in human heart.
(b) Why is heart considered auto excitable
(c) When do lub and dup heart sounds produced?
26. (a) Differentiates between C_3 and C_4 path ways.
(b) What are photorespirations? Explain steps of photorespiration

Or

- (c) Explain different steps of TCA cycle. Why is it called Tricarboxylic Acid cycle?
(d) What is RQ ? what is the RQ of proteins and fats?
27. (a) What is competitive inhibition? Explains with one example.
(b) Explain the structure of mitochondria.

Or

- (a) Explain different events of interphase of cell cycle.
(b) Explain the process of cytokinesis in a plant cell.